

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 01.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-030035**Date Inspected:** 12-Sep-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Tony Sherwood & Bernie Docena			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	See Below		

Summary of Items Observed:

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

Tower Ring Beam CJP @ ESW Q

ABF welding personnel Rick Clayborn was observed performing in process fit up for Complete Joint Penetration (CJP) welds for web & flange of the ring beam on the south east side of the tower. This location is at Electroslag weld (ESW) Q. The weld numbers per ABF drawing are identified as #150 (web) & #151 (flange). Welder was observed using 3/8" backing for back side (side B) of vertical CJP which will later be removed for back gouging. Weld joint configuration is identified as a skewed double bevel CJP weld on the flange and double bevel flat CJP butt joint on the web. Fit up at both locations was inspected by both QC Inspector Tony Sherwood and QAI. Fit up was accepted by the QC Inspector and QAI agreed.

Mr. Rick Clayborn was later observed at ESW "P" utilizing the Flux Cored Arc Welding (FCAW-S) process in the vertical (3G) & flat (1G) position with Lincoln Innershield NR-232, E71T-8, 1.8mm diameter wire electrode to weld ring beam 1" flange and 3/4" web plate. Backing strip was removed by carbon arcing and side B was back gouged and ground prior to welding. Mr. Rick Clayborn performed FCAW for vertical CJP on 1" flange. The welding parameters were verified by QC Inspector Tony Sherwood with a Fluke 337 current clamp meter per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-2030-3, Revision 1 & ABF-WPS-D15-2030-1, Revision 1. The welder was using a hand held propylene torch to maintain preheat/interpass temperature at or above 150° Fahrenheit. The welder utilized the Shielded Metal Arc Welding (SMAW) process in the overhead position (4G) with Lincoln Excalibur 7018 MR, E7018 H4R, 3.2mm diameter electrode to weld overhead CJP weld for web

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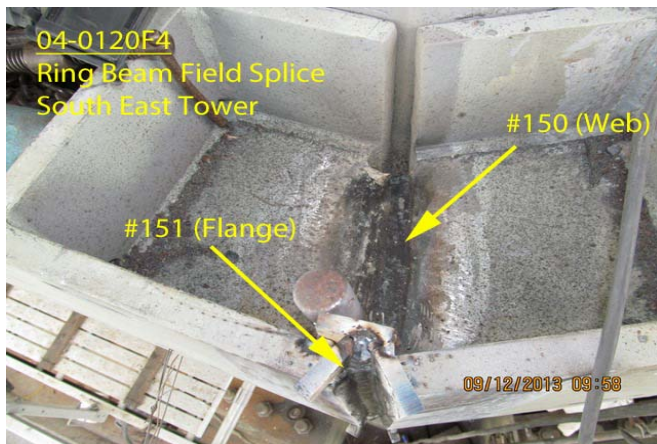
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plate after back gouging. The QAI and QC Inspector Bernie Docena performed final visual inspection, Magnetic Particle Testing (MT) and Ultrasonic Testing (UT) for ring beam CJP flange & web (#150/#151). The QC Inspector performed 100% inspection for all three methods mentioned above and accepted the final welds. The QAI also performed 100% verification after QC observing no relevant indications.

Tower Ring Beam CJP @ ESW P

The QAI and QC Inspector Bernie Docena performed final visual inspection, Magnetic Particle Testing (MT) and Ultrasonic Testing (UT) for ring beam CJP flange & web (#150/#151). The QC Inspector performed 100% inspection for all three methods mentioned above and accepted the final welds. The QAI also performed 100% verification after QC observing no relevant indications.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following picture images detail the work in progress.



Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for

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your project.

Inspected By:	Leach,Ed	Quality Assurance Inspector
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Reviewed By:	Mertz,Robert	QA Reviewer
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